"THE TOSS-BACK" - AN AID TO THE TEACHING AND DEVELOPMENT OF BASKETBALL SKILLS

by 680

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B. S., Kansas State University, 1968

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1969

Approved by:

Major Professor

ACKNOWLEDGMENTS

This writer would like to express appreciation to Associate Professor Raymond A. Wauthier, major instructor, for guidance, professional advice, and time and effort in the development of this report.

Appreciation is also expressed to Professor T. M. Evans, Chairman of the Department of Physical Education, and to Dr. Kenneth O'Fallon, Professor, in the College of Education for their efforts in assisting with this report.

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INTRODUCTION

This report will deal with a unique new device known as a Toss-Back that has been designed for the use at the high school and college level. This is not a scientific study of using the Toss-Back as a research instrument to collect data for analyzing and reporting results of experiments in basketball. It is merely an informative description of the Toss-Back and its potential use in coaching situations.

New basketball devices are not uncommon to coaches. These man-made inventions have always attracted players and coaches at all levels of participation. Some of these devices are very practical and can easily be used as a supplement to practice situations. Others are not always practical. The impractical ones should be called gimmicks, while the worthwhile ones should be included as a teaching aid to the coach.

The McCall's Rebounder is a device that has been very practical and useful in the game of basketball. The Rebounder was invented and developed in response to a need by Coach Fred McCall, Jr. in 1956 at Campbell College, Buie's Creek, North Carolina. McCall is respected as one of the ablest college basketball mentors in the Carolinas.

The Rebounder is designed to teach and correct techniques of rebounding. Two styles of Rebounders are available at $315.00 and $345.00 respectively. This particular device is being promoted and used by some of the most respected high school and college coaches in the United States. Some of these coaches include: Roy Skinner, Vanderbilt University; Charles G. Dreisell, Davidson College; Virgil Sweet, Valparaiso High School; and Walter R. Shublom, Wyandotte High School. All of these coaches have made statements that vigorously endorse this Rebounder.

Some basketball coaches have tried using weighted shoes during practice. The shoes are used to make it difficult for an athlete to move about freely on the court. Upon the removal of these weighted shoes, a person was supposed to be lighter on his feet, jump higher, move quicker, and of course be much more effective during a regular basketball game.

The Free-Throw-Retriever is another device that has been used. This particular unit is placed under the basketball goal, and is designed to return the ball back to the person at the free throw line. This device enables one to practice alone on his shooting.

Several of these devices are presently being used by many coaches throughout the United States. Most coaches are anxious to test some particular new innovation to see if it really works. The Toss-Back will be discussed in this paper to determine whether it does have some potential use for the future.

REVIEW OF LITERATURE

Reference is made in this report to the basketball dribble as being undesirable in various playing situations.

Fred "Tex" Winter, former head basketball coach at Kansas State University, and presently the head coach at the University of Washington, Seattle, had this to say about the dribble:

> The dribble is a potent weapon, but it should never be used without a purpose. Any time a player has a choice between dribbling and passing the ball, generally the pass should be made. Some disadvantages and misuses are listed here:
> 1. Scoring opportunities are lost because the ball is being dribbled when passing lanes are open to teammates in good shooting range.
> 2. Indiscriminate use spoils team play and takes the punch out of the attack.
> 3. The players who overhandle and abuse the dribble make spectators out of their teammates.
> 4. Too much dribbling spoils the timing of the play patterns.

5. The player who automatically bounces the ball once upon receiving it has lost one of his main threats -- the drive. Players should never waste this threat.[1]

Alvin F. "Doggie" Julian, former head basketball coach at Dartmouth College stated that: "Many slow-thinking players bounce the ball as soon as they get it. This is a folly. It limits the players offensive effectiveness and it allows his opponent to play him aggressively and tie up the ball."[2]

PURPOSE

Four objectives have been listed in outlining the purpose of this report. The first objective is the description and history of the apparatus in chronological sequence. Second, a detailed description will be given showing its component parts. Third, the examiner will demonstrate in descriptive form the usefulness and application of the apparatus and its contribution as a supplement to basketball practice drills. Last, an outline will be shown of several passing drills that can be used in a practice situation.

DEFINITIONS OF TERMS USED

Toss-Back. Toss-Back refers to a man-made device that can simulate game-like situations with emphasis on passing accuracy, increased physical conditioning, reflexes and timing, rebounding, tipping, and improved shooting, by using only one person. It is a rectangular shaped structure that will return an object, usually a basketball, when thrown to it.

Pin-point Accuracy. This refers to a situation in which one throws a basketball exactly to a desired position.

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[1]Fred "Tex" Winter, The Triple Post Offense (Englewood Cliffs, N. J.: Prentice-Hall, 1962), p. 133.

[2]Alvin F. "Doggie" Julian, Bread and Butter Basketball (Englewood Cliffs, N. J.: Prentice-Hall, 1960), p. 26.

HISTORY AND DEVELOPMENT OF THE TOSS-BACK

The original idea of the Toss-Back was conceived by Ken Mahoney and Fred "Tex" Winter, former basketball coach at Kansas State University, at their summer camp for boys at Ward, Colorado. Mahoney has been actively participating in basketball both as a former player at Kansas State, and later as a high school coach. His love of the game prompted him to develop a device that could aid both player and coach during their vigorous basketball endeavors. Mahoney is familiar with the various drills that many basketball coaches use in their everyday practice periods. These drills range from passing, shooting, tipping, and quick reaction movements which are so important in teaching the fundamentals of the game. Actually, the Toss-Back principle is not a new idea. The idea of using a device that will return an object when thrown to it has been evident in various forms. Several years ago, baseball had a device with the same basic principles involved. The principle is as follows: A net is stretched and fastened in a position to allow it to return an object when thrown against it. Terms such as Pitch-Back or Pass-Back have been used to describe a ball or object that is being returned to a person.

Children and adults are using baseball Pitch-Backs throughout the United States. To the best of his knowledge, Mahoney knew of no one who had ever developed the Pitch-Back principle and adapted it to basketball situations.

While coaching basketball at Wilson High School, Wilson, Kansas, Mahoney built a crude model of what later was called a Toss-Back. Figure 1 shows a sketch of the original model. This crude model was made from light weight steel, and molded into a rectangular shape with four legs acting as support. The device was adjustable allowing for different angles to be used. A durable nylon net was supported by strong, thick rubber bands that were

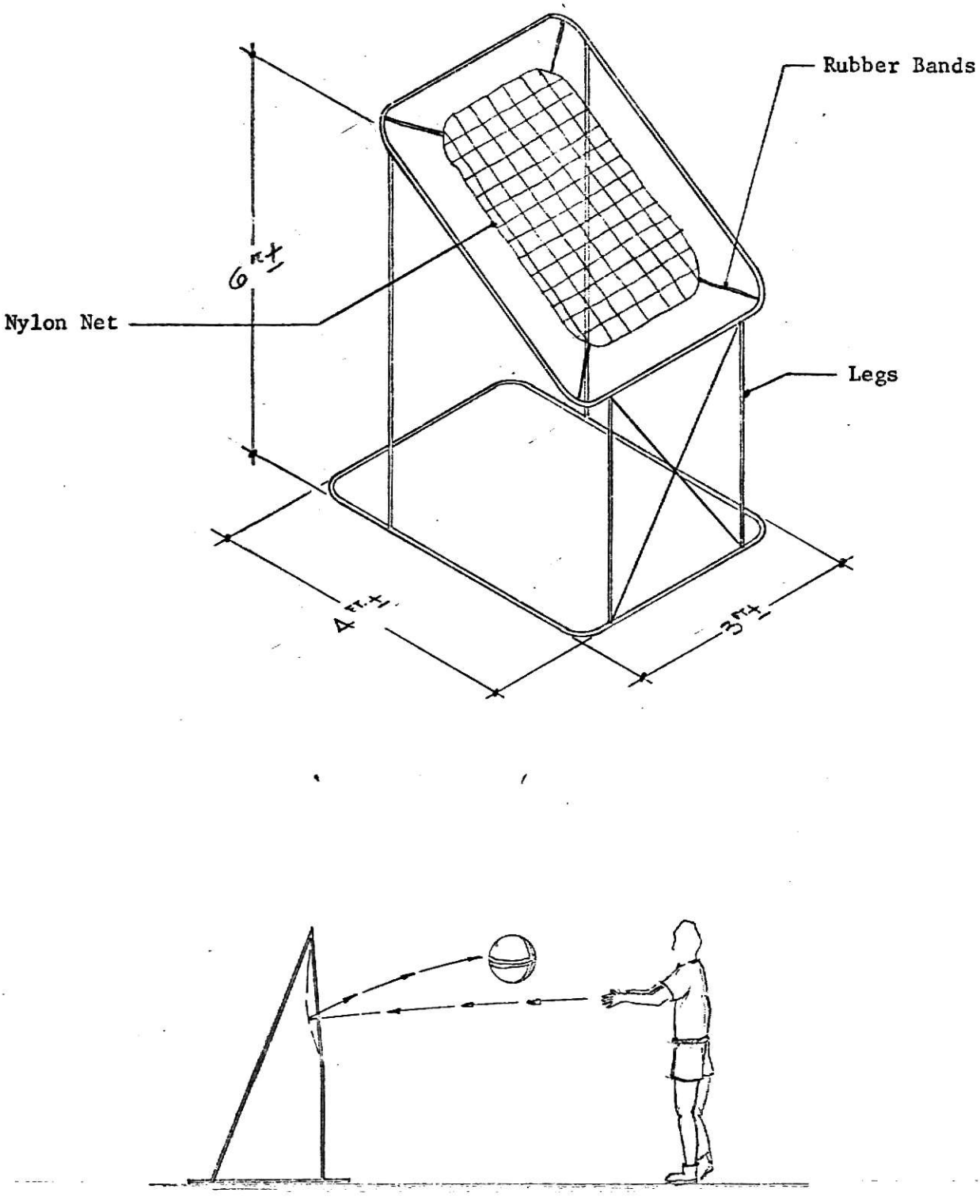

Fig. 1. Original Toss-Back model in its crude stage.

fastened along with the net to permanent hooks that were placed around the rectangular steel. This first Toss-Back model was used by Mahoney in his regular coaching situations at Wilson High. The team responded to Mahoney's idea and principle so well that he decided to ask the opinion of an expert on the game of basketball, and see if his Toss-Back idea had some validity in its application to the game of basketball.

The expert that Mahoney consulted was Winter, who was impressed after seeing a demonstration of Mahoney's invention. Winter then encouraged Mahoney to develop the device further and test it to see if it could be used in practice situations. Together, Mahoney and Winter experimented with four crude models of the Toss-Back at Tex Winter's Camp Audubon, at Ward, Colorado.

Mahoney's original objective was to use the Toss-Back to improve pinpoint accuracy while passing a basketball. He had hoped that the quick-return pass would improve one's quickness, timing, and agility. Since passing is of the utmost importance in the game of basketball, Mahoney wanted a device that would emphasize the passing phase of the game.

The other objective is to aid a player while practicing on his shooting. A common mistake for all young basketball players is to bounce the basketball before shooting at the goal. Most players instinctively develop a bad habit of bouncing the ball. The main reason for bouncing the ball before shooting results from the fact that players who practice alone, usually bounce the ball then shoot. It is only natural for beginners to follow this pattern.

If a player must bounce the ball before shooting, he can definitely be at a disadvantage when playing a real game. During the course of a basketball game, a player does not always have sufficient time to bounce the ball then shoot. A player who continually bounces the basketball before doing anything else, can disrupt a team's timing and coordination.

Mahoney was aware of these bouncing mistakes made by young players, especially in their early years. His idea was to teach and emphasize the importance of being able to execute the skills of the game upon a quick reception of the basketball, namely, the use of a Toss-Back. Here the Toss-Back could eliminate all of this dribbling. Now, a player could pass the ball, and upon its immediate return shoot the ball in the basket.

Mahoney's other objective related to physical conditioning. During his years as a coach, he experienced the need for players to push themselves physically beyond that initial point of exhaustion or tiring. He seemed to think that his high school players would not push themselves enough to obtain the desired benefits of conditioning.

After several days of conditioning on the Toss-Backs, Mahoney realized the possibilities of using the apparatus to create endurance work situations. Then he devised a few drills using the Toss-Backs, and stationed them in various spots in the small gym at Camp Audubon. Several athletes, who were in excellent condition were selected and after several minutes of his drill they seemed exhausted. No real scientific testing was ever attempted to determine the validity of any of these tests. This information is being used merely to show Mahoney's and Winter's enthusiasm in working with the Toss-Backs at Camp Audubon.

The Toss-Back idea was actually in its initial stages of development at Camp Audubon. Mahoney took his new device home to Dorrance, Kansas, but farming and school teaching endeavors prevented him from spending much time developing his Toss-Backs. Both he and Winter thought that the idea was good, but little more was said.

Mahoney showed his new idea to the head basketball coach at Dodge City Junior College, Dick Brown. Brown, like most coaches who have seen this device in operation was greatly impressed with it. He immediately informed Mahoney that he wanted to use the Toss-Back in his practice drills. Brown then devised his own drills for his team and is presently using the original Toss-Back in its crude form shown in Figure 1 page 5. Practice drills will be discussed in further detail later.

Brown believes that the Toss-Backs are a revolutionary device in the game of basketball. He has been using two of these Toss-Backs for the past two years (1966-1968), and believes they have greatly aided his team in their practice sessions. He is of the opinion that they save time in shooting drills, and that they are of great value in passing drills. He has used the Toss-Backs as part of his regular basketball program and presently thinks that he could not do without them. He is anxiously waiting for the new models to be developed.

Elmo Mahcney, who is Ken's brother, became interested in the Toss-Back idea after visiting with Ken. Presently, Ken is working abroad in service work for the United States and is unable to pursue his work on the Toss-Back. Ken asked his brother Elmo to carry on with his work.

At first Elmo was hesitant about working on the Toss-Back idea, but soon consented after he was shown a demonstration by his brother Ken, and Brown. Elmo saw immediately that the Toss-Back in its crude form, needed many improvements. Elmo worked for the Department of Agriculture for three years (1965-1968), in Washington, D. C. and now resides in his home town of Dorrance, Kansas.

At Dorrance, Elmo had the time to plan and develop a much improved Toss-Back. He wanted to develop an apparatus that was attractive, durable, adjustable, easily movable, and of course, feasible. Elmo had had extensive experience in creating new ideas. He has been active in working with various types of farm machinery and has invented several workable devices that are presently being used in agriculture today. Elmo is a very capable producer of new ideas. In addition, he has the ability to devise objects, parts, and intricate details in his planning. Elmo and Ken have formed a partnership, and later plan to form a corporation known as Mahoney Incorporated. Presently, Ken is a silent partner in the operation but plans to actively participate with the Toss-Back operation upon his return to the United States sometime late in 1970.

Elmo experimented with various ideas as he proceeded with his work on the Toss-Back. He made a trip to Dodge City, and after visiting with Brown about the experiences he had had with the original model, he returned to Dorrance. During the long winter months, Elmo experimented by trial and error and developed his first model. This new model was a vast improvement over the original one. The new Toss-Back was attractive in appearance and much more sturdy than the original model.

The rectangular steel frame was painted in a very attractive bright orange color, with contrasting black trim. Instead of four legs acting as a support, the new model had one steel beam extending from the middle of the apparatus to the base. At the base, the beam joined a flat piece of steel which was supported by four sturdy braces. Joining this base were four extended legs that stood on the floor to provide stability.

At his home in Dorrance, Elmo spent many long hours researching the new Toss-Back. Letters were written to manufacturers for needed parts that were used in its construction. In addition, many long hours were spent welding, building, improving, and adapting totally new ideas in construction. Finally, the new model was complete and was now ready for testing.

At this stage, he decided to investigate the possibility of obtaining a government patent on the Toss-Back. A letter was written to Mr. Phillip A. Rein, a registered patent attorney from Wichita, Kansas. After several months of investigation, Mr. Rein informed Elmo that a patent had been granted to use the trademark of "Toss-Back". In addition, Elmo, or a manufacturer having rights from the Mahoneys, was instructed by Rein to mark all of the structures to be manufactured and disclosed by brochures or other advertising media with the notations "Patent No. 3,427,026, and Other Patents Pending". This marking may be placed directly upon the product or a permanent name plate attached to it.

During the investigation procedures of the patent, Elmo continued to improve on his new model Toss-Back and developed what he now calls his finished product. This third model is an improvement over the second, with various distinguishing features. The model was completed the last week of February, 1969. Elmo was finally satisfied with his work.

Once Mahoney received final word on the patent, he notified Frank Woolf, president of Wichita Sporting Goods Company, and told him of his new innovation and plans for large scale manufacturing of this device. Woolf had heard about the Toss-Backs, but had never seen the finished product. Elmo arranged for an appointment with Woolf in Wichita. Woolf informed Mahoney that he was very busy, and that he could only spend a few minutes observing the Toss-Backs. Once Elmo showed off his new product, Woolf found time to

spend an hour of his busy day asking questions concerning the distribution of this new device.

Woolf advised Elmo to distribute these new Toss-Backs on a selective basis. He suggested that someone should distribute the Toss-Backs, who could work closely with Mahoney and his manufacturing plans. Naturally, Woolf was the logical distributor, since he does have a very reputable operation in Wichita, and throughout the midwestern United States. Woolf immediately ordered 200 Toss-Backs and wanted them delivered as soon as possible. Woolf's immediate approval convinced Elmo that from a business standpoint, the distribution of the Toss-Backs was indeed feasible.

The product was now available. Approval was needed by prospective coaches throughout the area. Knowing of the Mahoney brothers idea, this writer had followed the development closely, and like "Tex" Winter, was deeply interested in the Toss-Back's future. Elmo contacted this writer to objectively test his apparatus and develop some type of basketball drills that could be used as a supplement to coaching situations. This writer agreed to help.

DESCRIPTION OF COMPONENT PARTS

As was mentioned earlier, the original Toss-Back was a crude model which lacked all the necessary requirements for a product to be offered for sale. The idea was there, but it needed some refinement. The final model is much more sophisticated, and details of its component parts will be discussed in this section.

The basic unit of the Toss-Back consists of a rectangular steel structure. Once the steel is shaped to form, the remaining piece consists of one rectangular unit with dimensions of 38¼ by 51 inches. The steel is 3/4 inch

in thickness. Twenty-eight steel hooks are placed inside of the rectangular unit and are covered with hard rubber tubing. These hooks will hold the rubber bands that support the nylon net. These are shown in Figure 2.

The rectangular structure requires a great deal of support, and must be attached to a solid frame. Supporting the rectangular steel are two V-shaped steel rods that extend 8 inches from the top and bottom portions of the sides forming an apex that joins the two pipe rods to a supporting plate. The rods are 25 inches long and are ½ inch in thickness. The supporting rods, once joined at the plates, connect to a round movable cylinder-shaped piece of steel 22½ inches in length.

At the middle of the cylinder-shaped steel is a clamp that can be tightened or loosened to the desired angle. Figure 2 presents this view. This steel clamp can be tightened just once, then one can adjust the angle of the rectangular piece without having to tighten or loosen the nut on the clamp. The adjustable clamp was made that way to provide flexibility in moving the apparatus to the desired angle with very little trouble.

A 1½ inch squared piece of steel connects the middle pivotal cylinder piece, and inserts into another 1 3/4 inch piece of steel. This insert was made to provide adjustments for various heights.

Further specifications will be shown in the diagrams. By examining the basic constructional parts of the Toss-Back, one can readily see that it is a very durable piece of equipment.

A strong nylon net was needed to provide ample force in returning the ball in the direction from which it was thrown. A durable net of this kind was obtained from Warrior Sports Nets in Anniston, Alabama. This nylon net measures 22 inches by 34 inches, 3½ inch strength mesh (1 3/4 inches square), with hung square # 42 heavy cotton tape. The net is fastened to the inside

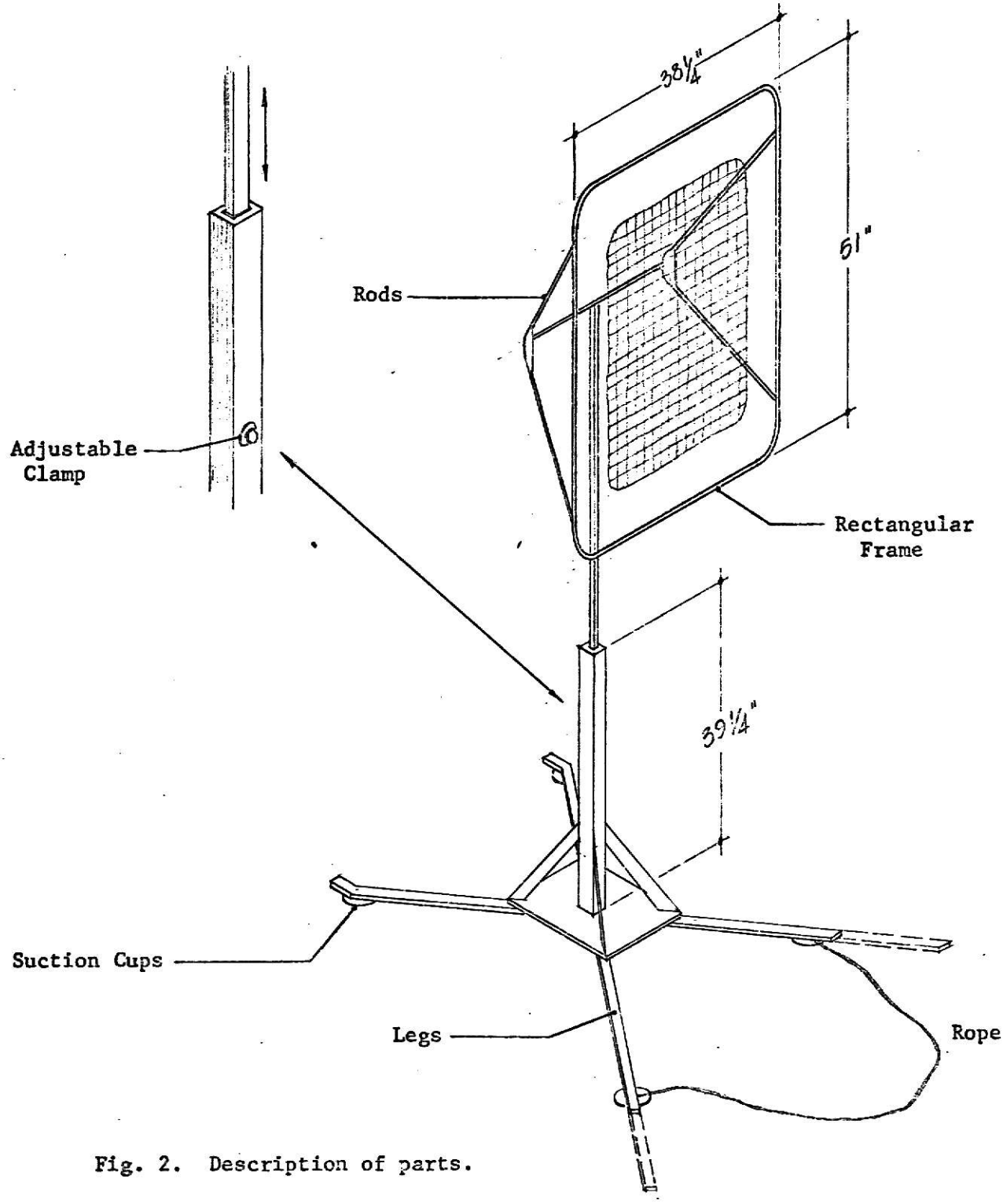

Fig. 2. Description of parts.

steel hooks with very sturdy elastic rubber bands. These strong rubber bands provide a very elastic reaction when an object strikes the net.

All of these construction parts are sent to Dorrance, Kansas and from there are assembled by a one or two man operation devised by Elmo. He plans to assemble all of these parts very quickly. Since this is a small processing operation, Elmo has planned to devise a different technique of assembling the various parts.

Mahoney will have all of the necessary parts at his disposal. He initially plans to be seated in a position where all parts will revolve around him on a table with wheels. Reference is made here to the shaping of the rectangular iron pieces. This process involves certain procedures for bending and turning the metal into shape. If one had to move from one area to another to do this, his time would not be properly utilized. If the component parts are centered around one man, much time will be saved, and greater efficiency will be provided in delivery of the Toss-Backs.

A summary of the basic component parts and a few comparisons between the old and new Toss-Backs will follow. The new Toss-Back is very attractive in appearance. The original was unattractive and clumsy looking. The new device is painted in a bright orange color with a contrasting black trim. This finished product is adjustable, sturdy, and easily movable on the court. It has one adjusting clamp located in the middle section that can move the apparatus from low to high positions with just a few easy turns. See Figure 2 on page 13.

With a twist of the hand, the rectangular part of the Toss-Back can be adjusted to the desired angle. Tilting higher adjustments thrust the ball back in a much higher trajectory and a longer distance. Low adjustments tilting

downward simulate a bounce pass. One has to experiment with the vertical adjustment to obtain the desired results.

The sturdy base with the heavy suction cups provides a stable foundation. See Figure 2 on page 13. The Toss-Back remains very rigid when an object is thrust against the rebounding net. In addition, the lower legs have an extension piece that can be used when the apparatus is raised to its maximum height. These extensions provide a more rigid base.

The two wheels that are connected to the two back legs provide easy mobility from one location to another. One person can easily move the Toss-Back to various places on the basketball court. Just grasp the apparatus in a balanced position, and with a slight tilting motion, move the Toss-Back onto its wheels. When the apparatus must be moved for very short distances, a small nylon rope that is tied between the two front legs can be used. See Figure 2 on page 13. A quick sliding motion will place the Toss-Back at any desired location.

USEFULNESS AND APPLICATION

The Toss-Back is not the answer to all of the coaches problems. It is merely a supplement to his teaching methods. The biggest reason for acting as a supplement is the fact that the Toss-Back can be a time-saver in practice situations. An example of this will be shown later in the paper.

A player can simulate game-like situations by himself with the use of the Toss-Back. Coaches often encourage their players to work on the improvement of their basketball skills by themselves. This solo practice may be hard for the coach to motivate in his athletes. However, by using a Toss-Back, game situations can be set up. A player can more accurately perform under game conditions by having another person around to retrieve the ball.

Why would a Toss-Back make a noticeable difference in a gymnasium? What contribution can the Toss-Back make in simulating game situations? For one reason, a player is accustomed to receiving the basketball from another teammate during a basketball game. When practicing alone, this particular situation cannot be created without the aid of someone or something. Thus, a Toss-Back can be set up anywhere on the court, at any desired angle, and the participating athlete can pass the basketball into the Toss-Back, catch it, then shoot at the goal.

Normally, a player practicing alone, bounces the ball, then shoots at the basket. The presence of the Toss-Back takes away this urge to bounce. Passes are used instead.

One of the biggest contributions of the Toss-Back is its ability to pin-point a pass to a player who has his back to the basketball goal. One player alone cannot simulate a situation in which he can receive the ball with his back to the goal. Again, the ball is usually bounced in this particular situation.

Some of these problems can be resolved by using the Toss-Back. Set the apparatus approximately 10 feet beyond the free throw line and near the mid-court area. At this particular distance one can pass the ball into the Toss-Back and receive the ball in a good position to shoot. Refer to Figure 3. This drill is especially good to use with the tall pivot man. Usually, a tall center needs someone to throw the basketball to him. This person can be eliminated now by using the Toss-Back. The Toss-Back will allow him to work alone as hard as he wants to.

After two months of testing the Toss-Back, the investigator found that an athlete can improve his reflexes and timing by using the Toss-Back. The real test is in lateral movement of the athlete. When the basketball is firmly

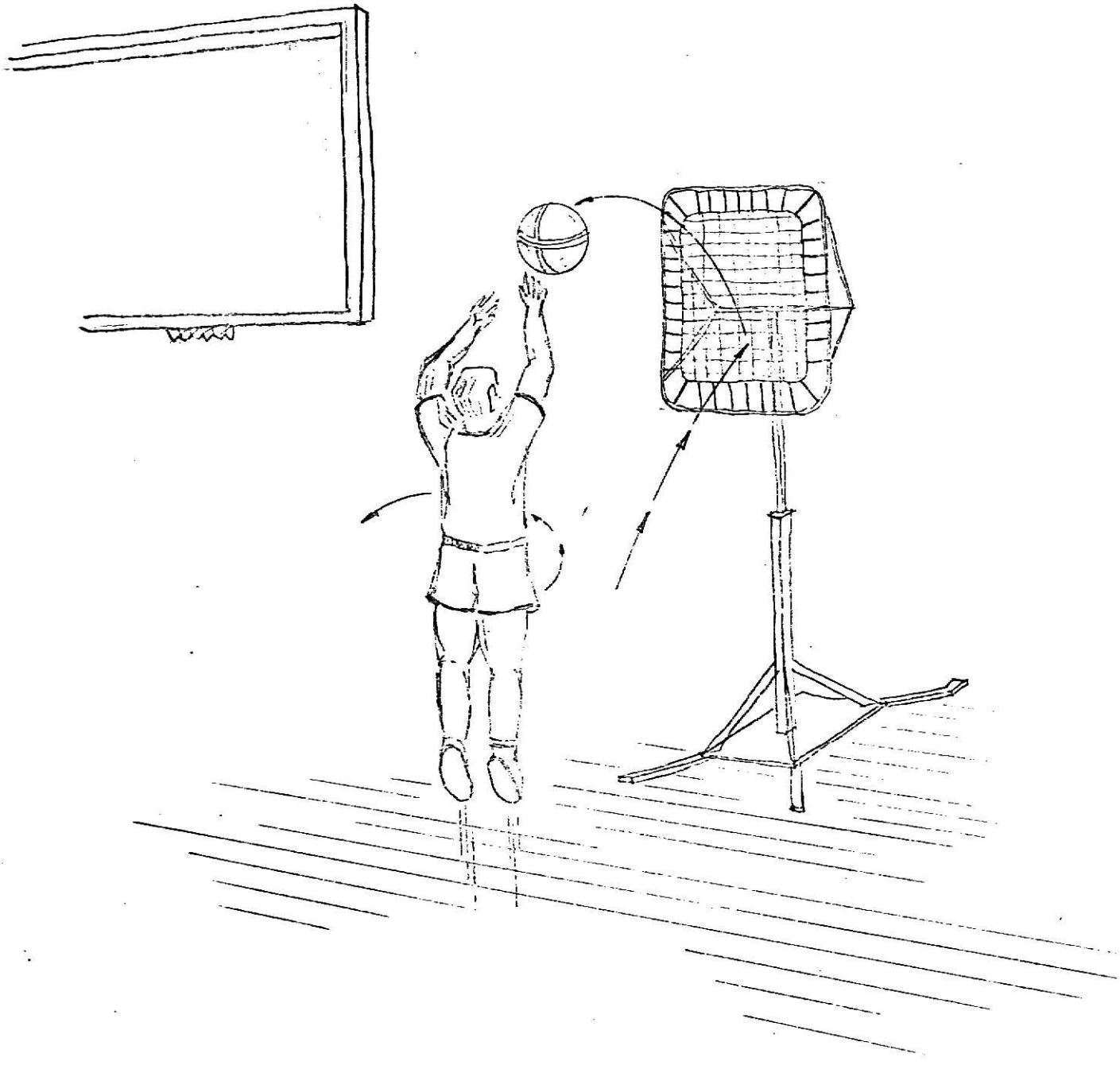

Fig. 3. Receiving the ball with back to the basket.

passed at various angles, it will rebound very fast and force the individual to move quickly in a lateral movement to retrieve the ball. When this angle passing is conducted, one will easily become tired within a short period of time.

All types of passes can be employed while using the Toss-Back. Probably the most common pass in the game of basketball is the two-handed chest pass. The Toss-Back is ideal to use with this kind of passing. The player aligns himself approximately 15 feet from the apparatus. After adjusting the Toss-Back front to the desired angle for trajectory, he proceeds to pass the ball from the chest area. A normal two-hand chest pass will leave his hands and rebound back to him in one second. The real significance of this type of passing is that one person can work alone on this particular fundamental of the game.

Another widely used pass in the game is the overhead pass. The Toss-Back must be raised slightly to accomodate this type of pass. The player should place the ball over his head with his arms fully extended, and release the ball with his wrist and fingers. A coach usually teaches his players to keep the basketball on the same plane of flight while the ball is in the air. The person receiving the ball should receive it in the same place from which it was thrown. An example of this would be that if one passes from the chest, the ball should be received at the chest. Again, the purpose of the overhead pass is to concentrate on keeping the basketball on the same plane during its flight. The Toss-Back merely acts as a target to achieve this goal.

A bounce pass can be created by tilting the rectangular frame of the Toss-Back forward. The ball now bounces off the floor, thus creating a bounce

pass. This bounce pass simulation is more important in concentrating on the reception of the ball rather than the passing.

A baseball pass has become a very important part of the game. Many fast break situations are created by the use of a baseball pass. The Toss-Back can be used as a target for simulating baseball passes. The Toss-Back should be placed approximately 50 to 75 feet away from the passer. The baseball pass is just like throwing a baseball overhand.

The angle pass is one of the best types of passes to use for a multi-purpose drill. The passer incorporates all of the fundamentals of passing, and at the same time gains valuable conditioning exercise. Any type of pass can be made, and the Toss-Back responds accordingly. The angle pass is any type of pass that is thrown at an angle. The athlete must move quickly in order to catch the returning ball. Angle passing can test ones ability to move quickly in and around the basket area in a lateral movement. Angle passing is shown in Figure 4.

Tipping the basketball is another very important phase of the game. By tilting the Toss-Back, one can simulate a typical tipping situation. Move the Toss-Back to one side of the basketball goal. Then, adjust the apparatus to the desired angle so that the ball will rebound over to the other side of the basket. A player can station himself opposite the Toss-Back and pass the ball, then coil and wait to tip it back into the basket. A tipping situation is shown in Figure 5.

Offensive tipping is of great importance to all coaches. A player must learn how to control his tip to the basket. This control involves timing and finger tip touch on the basketball. This type of offensive tipping is not luck, it is a learned skill. In order to be an effective tipper, a player must practice constantly on this phase of the game.

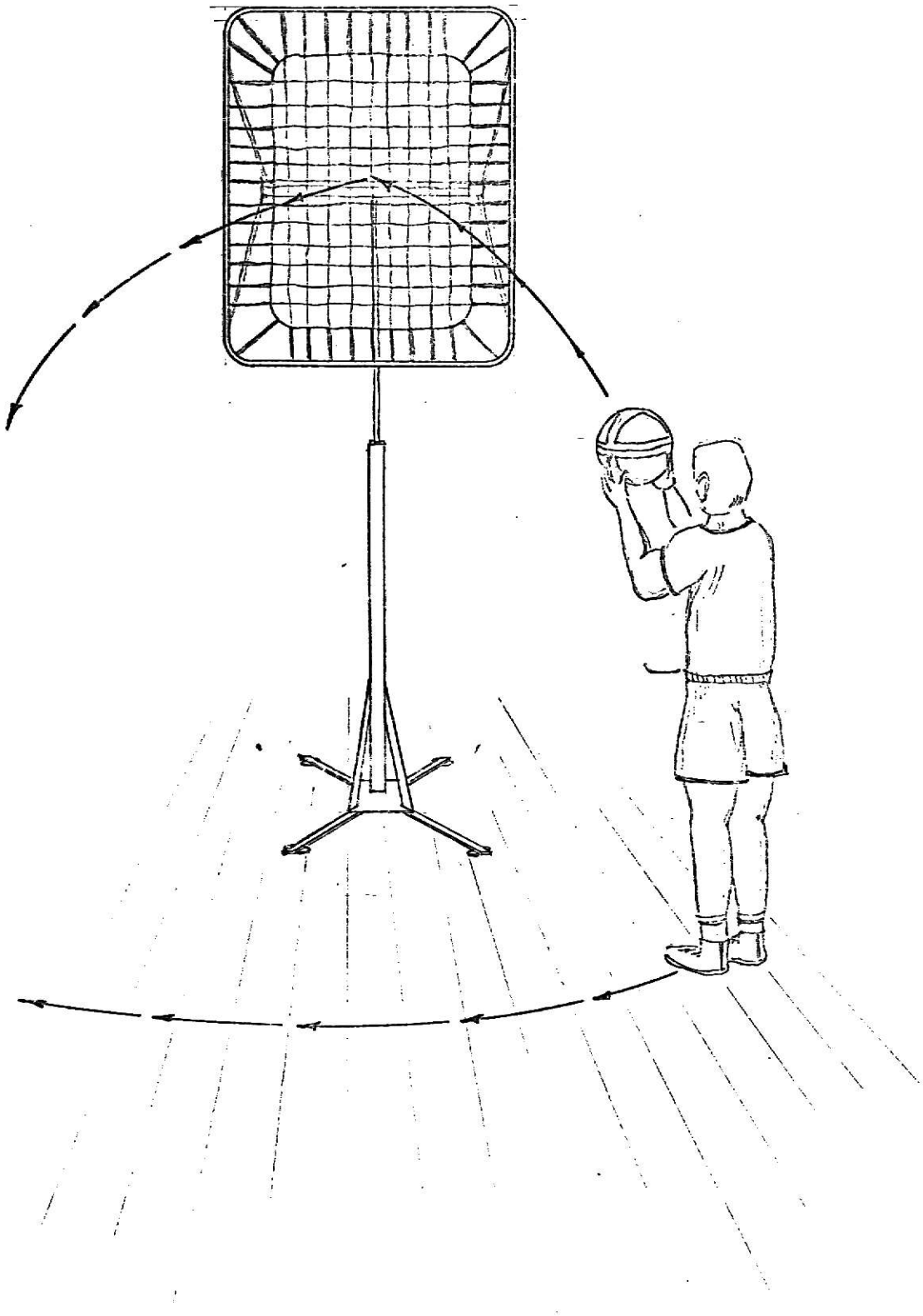

Fig. 4. Angle passing.

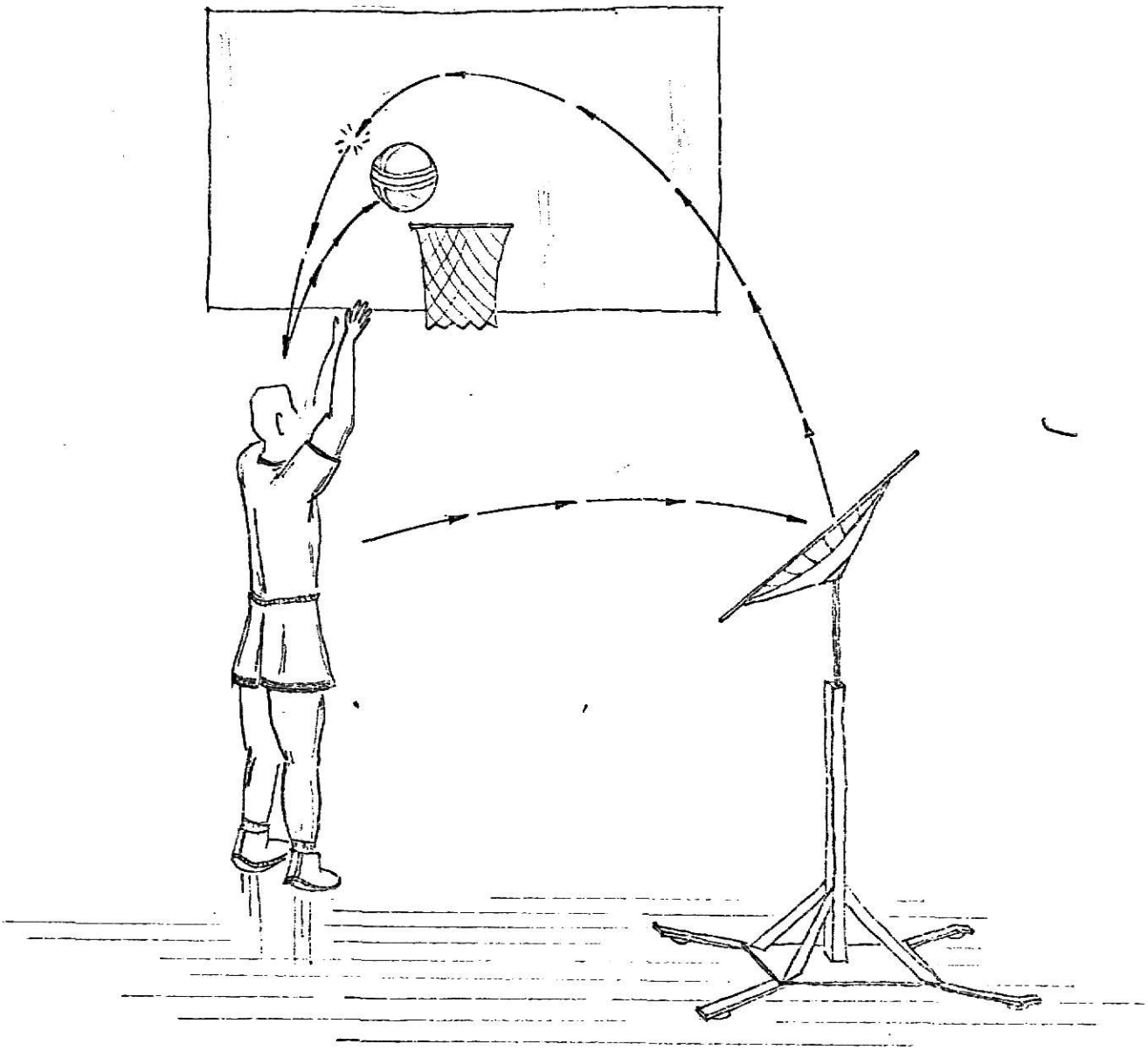

Fig. 5. Tipping.

The Toss-Back can simulate controlled tipping situations. One should place the apparatus to the side and a short distance away from the basket. Tilt the rectangular frame so that the ball will rebound in front of the basketball rim. The player should time his jump with the initial pass, and then tip the ball back into the basket. Finger tip control must be emphasized in this situation. The Toss-Back lofts the ball into the air and allows the player ample time to get his hand under the ball and guide it back into the basket.

This section will be devoted to the origin and application of practice drills used in conjunction with the Toss-Back. These drills were set up by the investigator, and at the time, consideration was given to the types of game-like situations the Toss-Back could create. These drills were set up to simulate various basketball passing situations.

The first drill will be a pass coming from the forward position, approximately 15 feet from the free throw line extended. This pass will go to the man at the top of the circle. This pass is made many times during the course of a basketball game, and often times a guard will shoot from the top of the circle area. Most coaches want their guards to be able to carry the threat of shooting from that area.

Practice drills are set up to simulate shooting from this area. One such drill would be to form two lines, a line at the forward spot and a line at the top of the circle guard spot. The ball is passed from the forward to the guard spot. The guard shoots and then rebounds his own shot. Once he has rebounded his shot, he passes the ball to the waiting forward line. Two balls are used in this situation to provide continuous movement.

The Toss-Back can simulate this same drill by using only one line. The guards would form their line at the top of the circle and each person would

have his own ball. The Toss-Back would act as the forward line and would be placed in a position to return the ball quickly to the waiting top of the circle guard. The drill is tremendously speeded up because each player has his own ball and creates continuous movement. Figure 6 shows how this drill works.

The continuous shooting drill at the top of the circle speeds up all aspects of a shooting drill. When the drill is used without the Toss-Back, players can rest while changing lines. The forward line can rest while waiting to move into the shooting line.

The Toss-Back does not give the players much time to rest because each person has his ball and must be ready to follow the person ahead of him. Best results are obtained when the players have continuous movement in a basketball drill, and this is what the Toss-Back creates.

The next drill is called the big man's drill. As was indicated earlier in this paper, most big men have trouble maneuvering with the basketball when their back is to the goal. A player with his back to the basket must know at all times exactly where he is located in relation to the goal. In order to master this awareness on the court, he must simulate many situations and positions on the court. This skill is usually developed in the off-season or after practice hours. Normally, two people are needed to create these situations, one being the passer, the other being the shooter.

This all can be changed by using the Toss-Back. Now, only one person is needed for the drill. The Toss-Back can be placed anywhere on the perimeter at the top of the circle of the basketball court. The Toss-Back is raised to the desired level to simulate a high, in-coming pass to the post man. The player uses a two-handed, overhead pass and awaits its return. Upon receiving

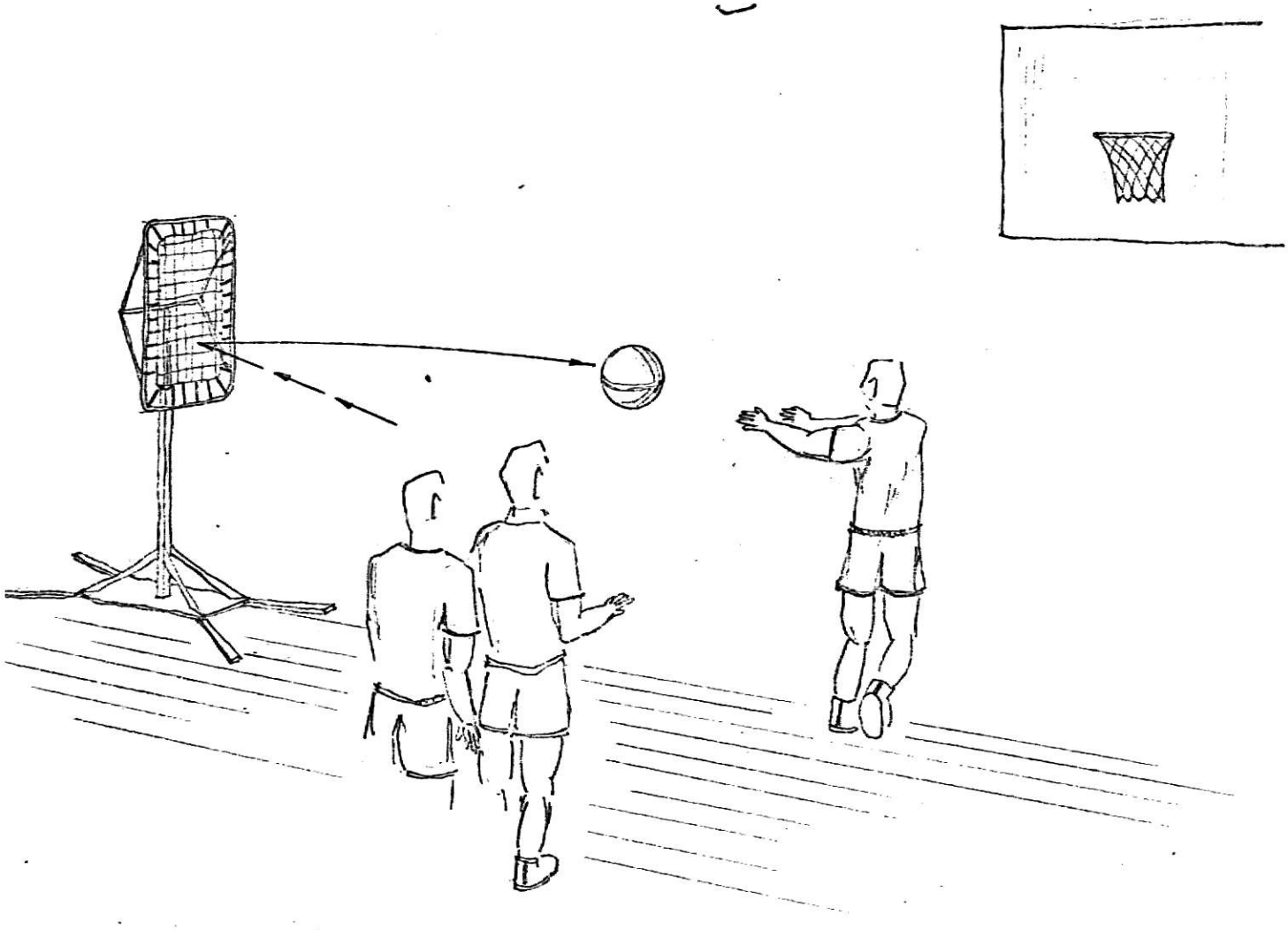

Fig. 6. Top of circle shooting drill for guards.

the ball, he can shoot a turning hook shot or jump shot. He then rebounds his shot and again passes the ball into the Toss-Back. Refer to Figure 3 on page 17.

The Toss-Back can be moved anywhere on the court but should be located in an area where the post man usually receives the ball during a game.

Another good drill to use is the jumping-and-ball-reaction drill. This drill can be accomplished by adjusting the Toss-Back to a tilting position. Once the apparatus is tilted, the ball will return in an arcing trajectory simulating a high pass.

The drill is most effective when three big men are stationed under the basket simulating a rebound situation. One of the players throws the basketball to the Toss-Back, and upon its immediate return, the players will lunge and attempt to rebound the ball. The trajectory of the ball should be high enough over the player's heads to challenge the players. This particular situation simulates a game condition in which several people are going after a rebound. One can gain strength, endurance, and quick reaction from using this drill. Refer to Figure 5 on page 21.

The fast-break drill is becoming more prevalent in college basketball today. Teams practice for hours on their particular style of fast breaking. By using a Toss-Back, a team can concentrate on pin-point passing. The drill would start by rebounding the ball off the board, then pass the ball to the Toss-Back, located in an outlet area, 15 feet from the free throw line extended. The Toss-Back would merely act as an outlet pass and give the player a target to use when practicing the fast break. The fast-break drill is shown in Figure 7. There are two types of passes that can be used with this drill. One is the baseball pass, and the other is the two-hand overhead pass. Both of these passes are a very important part of implementing the fast break.

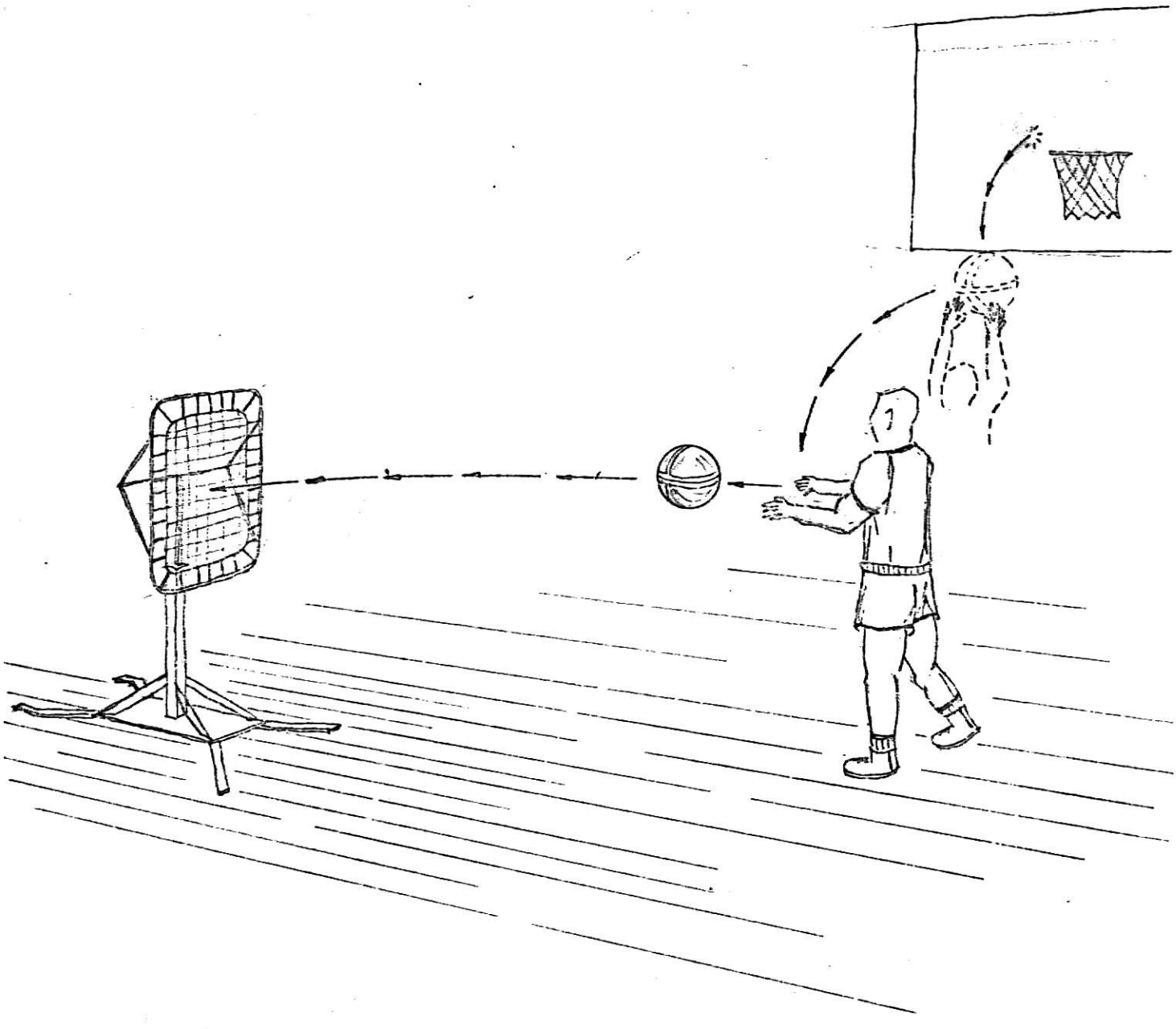

Fig. 7. Fast-break drill.

Angle passing drills are good to use for conditioning in the early season. The Toss-Back can be adjusted at any height when using this drill. The lower angle set of the apparatus calls for a one-arm hook pass. The middle level requires a two-hand chest pass, and with the higher level adjustment, a two-hand overhead pass is employed. The Toss-Back can be placed anywhere on the court. The athlete prepares himself for a vigorous conditioning drill. He passes the ball at the Toss-Back at an angle, and then moves quickly in a lateral movement to catch the return pass. Once he catches the ball, the procedure is reversed. He passes the ball from the side where he caught the ball and moves quickly to catch the return pass. This is a great conditioner for quickness and reaction as well as all-around conditioning for the lungs. Refer to Figure 4 on page 20.

Tipping is another drill that can be used. The biggest problem in tipping the basketball is learning how to control the ball. A player must have great timing and balance in his jump and maintain finger tip control of the ball at all times. The Toss-Back should be stationed near the basketball goal and to the side. The apparatus is tilted upward to allow the ball to return over the rim to the opposite side of the basket. The player stations himself in a ready position and passes the ball to the Toss-Back. The ball will react quickly coming over the goal. The trajectory simulates someone shooting the ball at the basket. The player should try to tip the ball with his finger tips before the ball moves on its downward flight. This is shown in Figure 5 on page 21.

SUMMARY AND RECOMMENDATIONS

In accomplishing the first objective of this paper, a description and history of the Toss-Back was given in chronological order. The original idea of the Toss-Back was conceived by Ken Mahoney and Fred "Tex" Winter, former basketball coach at Kansas State University, at their summer camp for boys at Ward, Colorado. While coaching basketball at Wilson High School, Wilson, Kansas, Mahoney built his first model of what later was called a Toss-Back. Mahoney's original objective was to use the Toss-Back to improve pin-point accuracy while passing a basketball. Since passing is of the utmost importance in the game of basketball, Mahoney wanted a device that would emphasize the passing phase of the game.

The other objective was to aid a player while practicing on his shooting. A common mistake for all young basketball players is to bounce the basketball before shooting at the goal. Mahoney was aware of these bouncing mistakes made by young players, especially in their early years. His idea was to teach and emphasize the importance of being able to execute the skills of the game upon a quick reception of the basketball, namely the use of a Toss-Back.

Elmo Mahoney, who is Ken's brother, later built a much more sophisticated and improved model of the Toss-Back that is being used at this time. Many long hours were spent welding, building, improving, and adapting totally new ideas in construction. Finally the new model was complete and was ready for testing.

In the second objective of this paper, a detailed description was given showing the Toss-Back's component parts. The basic unit consisted of a rectangular piece of steel, with dimensions of 38¼ by 51 inches.

A strong nylon net was used to provide ample force in returning the ball in the direction from which it was thrown. The finished product is adjustable, sturdy, and easily movable on the court.

The Toss-Back may prove to be useful in various coaching situations. The Toss-Back can be most useful to a basketball player while he is practicing alone. The Toss-Back has the potential for creating many game-like situations. A coach can use the apparatus as a supplement to his coaching techniques. A Toss-Back will simulate situations that involve passing, jumping, shooting, tipping, and rebounding.

Various drills can be used with the Toss-Back. These drills include shooting, passing, the fast break, tipping, and rebounding. The Toss-Back can be moved anywhere on the basketball floor to perform the drills.

The facts show that the Toss-Back does have tremendous potential in its use as a supplement to coaching situations. However, more research needs to be done in testing and measuring results. Comparisons must be made between using the Toss-Back during a practice situation and practicing without it.

This report was an informative account of the Toss-Back and its historical development. There is no scientific research anywhere in the study. Therefore, this writer hopes to continue investigating the potential of the Toss-Back, and possibly make a statement concerning its proven acceptability sometime in the future.

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"THE TOSS-BACK" - AN AID TO THE TEACHING AND DEVELOPMENT OF BASKETBALL SKILLS

by

LAWRENCE N. WEIGEL

B. S., Kansas State University, 1968

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1969

The purpose of this study was to: (1) describe the history of the Toss-Back in chronological sequence, (2) show a detailed description of its component parts, (3) demonstrate in descriptive form the usefulness and application of the apparatus and its contribution as a supplement to basketball practice drills, (4) outline several passing drills that can be used in a practice situation.

The original idea of the Toss-Back was conceived by Ken Mahoney and Fred "Tex" Winter, former basketball coach at Kansas State University, while conducting their summer camp for boys at Ward, Colorado. The original objective was to use the Toss-Back to improve pin-point accuracy while passing a basketball. The Toss-Back was built to improve one's quickness, timing, and agility. Since passing is of the utmost importance in the game of basketball, Mahoney wanted a device that would emphasize the passing phase of the game.

The other objective was to aid a player while practicing on his shooting. A common mistake for all young basketball players was bouncing the ball before shooting. Invariably, most players instinctively have a bad habit of bouncing the ball. The Toss-Back was designed to teach players not to bounce the ball everytime before shooting a basket. With a Toss-Back, a player can pass the ball, and upon its immediate return, shoot the ball in the basket.

Elmo Mahoney, who is Ken's brother, built a sophisticated model of the Toss-Back at his home in Dorrance, Kansas. He spent many long hours welding, building, improving, and adapting totally new ideas in construction. Finally, the new model was complete and was now ready for testing.

The Toss-Back was now available, but needed to be approved by the prospective basketball coaches throughout Kansas. Knowing of the Mahoney brothers

idea, this writer had followed the development closely, and like "Tex" Winter, was deeply interested in the Toss-Back's future. Elmo Mahoney contacted this investigator to objectively test his apparatus and develop some type of basketball drills that could be used as a supplement to coaching situations.

This writer agreed to help, and immediately devised various passing drills to simulate game like situations. Some of the drills included passing, shooting, tipping, and rebounding. The drills were set up to show the Toss-Back's usefulness to a player and coach.

It is difficult to draw a definite conclusion from the information concerning the Toss-Back. The facts show that the Toss-Back does have tremendous potential in its use as a supplement to coaching situations. However, more research needs to be done in testing and measuring results. Comparisons must be made between using the Toss-Back during a practice situation and practicing without it.

This report was an informative account of the Toss-Back and its historical development. There is no scientific research anywhere in the study. One cannot prove the value of such a device without conducting some type of valid research.

Therefore, this writer hopes to continue investigating the potential of the Toss-Back, and possibly make a statement concerning its proven acceptability sometime in the future.